REMARKS

Claims 9 and 11 are amended. No new subject matter is added. Claims 1-37 remain pending. The applicants respectfully request reconsideration and allowance of the pending claims in light of the following remarks.

Election/Restriction Requirement

The applicants affirm the provisional election, without traverse, of claims 1-37 for prosecution.

In the Specification

The paragraph beginning on page 9, line 22, was amended to recite that the separating device 700 is arranged between ***a bottom 205 of the process chamber 200*** and the heater stage 600. This amendment is fully supported by the original application at FIG. 1, at page 3, lines 26-28 and at page 9, line 16.

Claim Rejections – 35 USC § 102

Claims 1-9, 12, 14, 15 and 19 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,534,816 to Chen, et al. (hereafter, 'Chen'). The applicants respectfully disagree.

Claim 1 recites, *inter alia*, a cooling system comprising a plurality of coolant inlets and a plurality of coolant outlets formed in a lower one of the plurality of plates. Claim 1 also recites a plurality of inner cooling lines.

It is alleged that Chen's element 56 (FIG. 5) discloses a plurality of coolant inlets and Chen's element 62 (FIG. 5) discloses a plurality of coolant outlets (Office Action, section 7). This is an incorrect interpretation of Chen.

Contrary to the recited features of claim 1, Chen teaches that "the cooling fluid is transferred to and from passageway 56 by ***a [single] vertical inlet hole 66*** and ***a [single] similar outlet hole 68*** which intersect the extreme ends of passageway 56 as shown in FIG. 2, and indicated by dashed lines in FIG. 5" (column 5, lines 23-27; emphasis added).

Chen teaches that the passageway 56 is fabricated by forming a plurality of parallel, spaced apart holes 58 extending horizontally through the electrode 12 (FIGS. 5 and 6; column 5, lines 5-8). Contrary to the recited features of claim 1, however, during final assembly a ring 64 is fitted into groove 60 and ***welded to close the ends of alternate holes 58*** (column 5, lines 13-16; emphasis added). This forms "a ***single, continuous, serpentine passageway 56***" in electrode 12 to provide for the flow of cooling fluid (column 5, lines 20-22; emphasis added).

For the above reasons, Chen does not teach the claim 1 features of a plurality of coolant inlets, a plurality of coolant outlets, or a plurality of inner cooling lines. Consequently, under MPEP 2131, Chen does not anticipate claim 1 because it fails to teach each and every element of claim 1.

Claims 2-8 inherently contain the features of claim 1. Consequently, under MPEP 2131, Chen does not anticipate claims 2-8 because it fails to teach each and every feature inherent to claims 2-8.

Claim 9 recites an apparatus comprising, *inter alia*, a process chamber and a heater stage located ***in*** a lower portion of the process chamber (emphasis added). Claim 9 is also amended to recite a separating device arranged between ***a bottom of the process chamber*** and ***a bottom of*** the heater stage, said separating device configured to separate the heater stage from ***the bottom of the process chamber*** (emphasis added). This amendment is fully supported by the original application in FIG. 1 and also at page 3, lines 26-28; page 9, lines 22-34; and page 10, lines 1-13.

It is alleged that the claimed heater stage is disclosed by Chen's element 40 (Office Action, section 7, subsection viii). This is slightly inaccurate. Chen's lower electrode assembly 38 has both a conductive upper section 40 and an insulating lower section 42 (column 3, lines 49-52). Chen also teaches that there is an upper electrode (FIG. 1; column 3, line 25).

Although electrodes are not shown in applicants' FIG.1, it is clear from the specification that heater stage 600 has built-in electrodes that apply bias to a wafer (page 5, lines 11-12). Pending claims must be interpreted in a manner that is consistent with the specification (MPEP 2111). Consequently, Chen's upper electrode 12 and lower electrode assembly 38 together correspond to the claimed heater stage.

It is alleged that the claimed process chamber is disclosed by Chen's element 30 (Office Action, section 7, subsection viii). Chen defines this element as the cylindrical outer housing 30 (FIG. 1; column 3, line 40).

It is also alleged that the claimed separating device is disclosed by Chen's element 44 (Office Action, section 7, subsection viii). Chen defines this element as insulating ring 44 (FIG. 1; column 3, lines 53-54).

Contrary to the recited features of claim 9 that are illustrated in applicants' FIG. 1, Chen's insulating ring 44 is not arranged between a bottom of the outer housing 30 and a bottom of lower electrode assembly 38. Indeed, Chen's insulating ring 44 is arranged on an upper surface of the upper section 40. The Examiner has also agreed that the surface between

the insulating ring 44 and the upper section 40 is not a bottom of the claimed heater stage (Office Action, section 9, subsection i).

Consequently, for the reasons explained above, Chen does not anticipate claim 9 because it fails to teach each and every feature recited in claim 9 (MPEP 2131).

Claims 12, 14, 15, and 19 inherently contain the features recited in claim 9. Consequently, under MPEP 2131, Chen does not anticipate claims 12, 14, 15, and 19 because it fails to teach each and every feature inherent to those claims.

Claim Rejections – 35 USC § 103

Claims 10, 11, 13, 16-18, and 20-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of U.S. Patent No. 6,120,605 to Sato (hereafter, 'Sato'). The applicants respectfully disagree.

Claims 10, 11, 13, and 16-18 inherently contain the features recited in claim 9. It was explained above how Chen failed to teach all the features of claim 9. Sato is not alleged to teach any of the features recited in claim 9. Consequently, under MPEP 2143.03, the Chen/Sato combination fails to establish a *prima facie* case of obviousness because it fails to teach or suggest all the features inherent to claims 10, 11, 13, and 16-18.

Similar to claim 1, claim 20 recites, *inter alia*, a shower head cooling system arranged in a lower plate that includes a plurality of coolant inlets, a plurality of coolant outlets, and a plurality of independent inner cooling lines for connecting each of the coolant inlets to one of the coolant outlets. Thus, for the same reasons outlined above, Chen does not teach these features of claim 20.

Sato is not alleged to teach the features of claim 20 that Chen fails to teach.

Claims 21-37 inherently contain the features of claim 20.

Consequently, under MPEP 2143.03, the Chen/Sato combination fails to establish a *prima facie* case of obviousness for claims 20-37 because it fails to teach or suggest all the features recited in claim 20 or all the features that are inherent to claims 21-37.

Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1-37 of the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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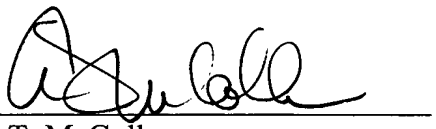

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